

## **Supplemental Material for Variability of Urinary Phthalate Metabolite and Bisphenol A Concentrations before and during Pregnancy**

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Supplemental Table 1: Univariate characteristics and frequency of detection for specific gravity adjusted urinary phthalate metabolite and BPA concentrations at enrollment and each trimester of pregnancy

Metabolite/Timing	% Detected	Median (25 <sup>th</sup> , 75 <sup>th</sup> percentile)
<b>Σ DEHP Metabolites (μmol/L)</b>		
Pre-Pregnancy: Enrollment	N/A	0.50 (0.26, 1.04)
Pre-Pregnancy: Last Sample	N/A	0.44 (0.22, 1.31)
1 <sup>st</sup> Trimester	N/A	0.74 (0.31, 2.47)
2 <sup>nd</sup> Trimester	N/A	0.35 (0.22, 0.86)
3 <sup>rd</sup> Trimester	N/A	0.45 (0.20, 1.28)
<b>Σ DEHP Oxidative Metabolites (μmol/L)</b>		
Pre-Pregnancy: Enrollment	N/A	0.46 (0.24, 0.98)
Pre-Pregnancy: Last Sample	N/A	0.43 (0.21, 1.11)
1 <sup>st</sup> Trimester	N/A	0.68 (0.29, 2.22)
2 <sup>nd</sup> Trimester	N/A	0.33 (0.21, 0.83)
3 <sup>rd</sup> Trimester	N/A	0.42 (0.20, 1.21)
<b>MEHP (μg/L)</b>		
Pre-Pregnancy: Enrollment	95	6.1 (3.4, 15)
Pre-Pregnancy: Last Sample	96	7.0 (3.4, 20)
1 <sup>st</sup> Trimester	98	12.5 (4.8, 51)
2 <sup>nd</sup> Trimester	95	6.2 (3.3, 18)
3 <sup>rd</sup> Trimester	83	5.7 (2.9, 14)
<b>MEP (μg/L)<sup>c</sup></b>		
Pre-Pregnancy: Enrollment	100	120 (55, 287)
Pre-Pregnancy: Last Sample	100	87 (35, 284)
1 <sup>st</sup> Trimester	100	64 (27, 219)
2 <sup>nd</sup> Trimester	100	82 (42, 223)
3 <sup>rd</sup> Trimester	100	87 (31, 266)
<b>MBP (μg/L)</b>		
Pre-Pregnancy: Enrollment	97	23 (12, 40)
Pre-Pregnancy: Last Sample	96	17 (10, 32)
1 <sup>st</sup> Trimester	98	26 (15, 43)
2 <sup>nd</sup> Trimester	99	27 (16, 41)
3 <sup>rd</sup> Trimester	98	26 (13, 43)
<b>MiBP (μg/L)</b>		
Pre-Pregnancy: Enrollment	95	10 (5.4, 17)
Pre-Pregnancy: Last Sample	93	7.7 (4.0, 15)
1 <sup>st</sup> Trimester	94	9.0 (5.7, 14)
2 <sup>nd</sup> Trimester	95	9.6 (5.4, 17)
3 <sup>rd</sup> Trimester	94	11 (5.0, 18)
<b>MBzP (μg/L)<sup>c</sup></b>		
Pre-Pregnancy: Enrollment	95	5.2 (2.5, 9)
Pre-Pregnancy: Last Sample	89	4.6 (2.1, 8)
1 <sup>st</sup> Trimester	98	6.5 (3.5, 10)
2 <sup>nd</sup> Trimester	92	5.8 (2.7, 12)
3 <sup>rd</sup> Trimester	93	5.9 (3.5, 11)
<b>BPA (μg/L)</b>		
Pre-Pregnancy: Enrollment	82	2.5 (1.4, 3.8)
Pre-Pregnancy: Last Sample	80	2.2 (1.4, 3.8)
1 <sup>st</sup> Trimester	86	2.5 (1.7, 4.1)
2 <sup>nd</sup> Trimester	84	2.5 (1.4, 4.2)
3 <sup>rd</sup> Trimester	79	2.4 (1.5, 4.8)
<b>Specific Gravity</b>		
Pre-Pregnancy: Enrollment	N/A	1.011 (1.007, 1.020)
Pre-Pregnancy: Last Sample	N/A	1.015 (1.007, 1.020)

1 <sup>st</sup> Trimester	N/A	1.015 (1.008, 1.023)
2 <sup>nd</sup> Trimester	N/A	1.014 (1.009, 1.019)
3 <sup>rd</sup> Trimester	N/A	1.012 (1.007, 1.018)

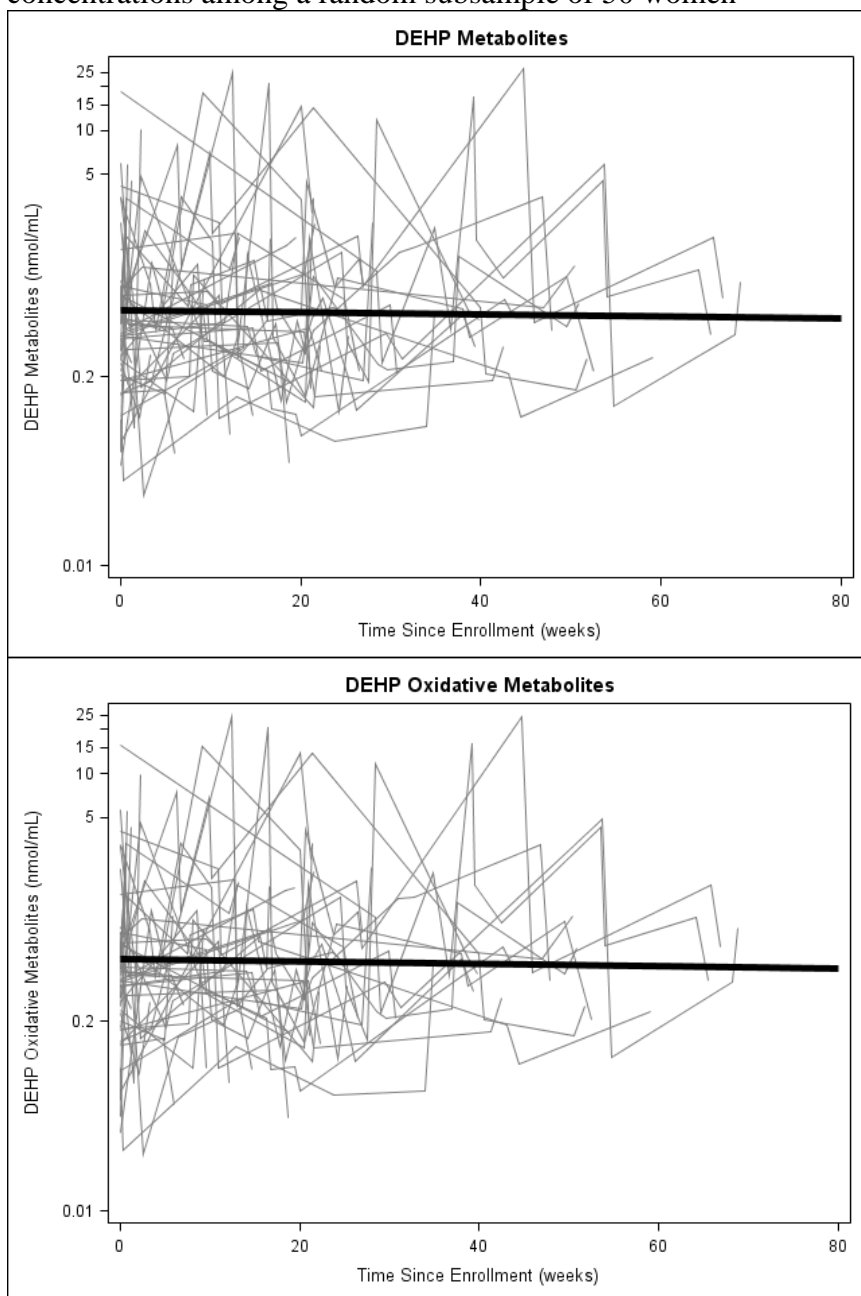
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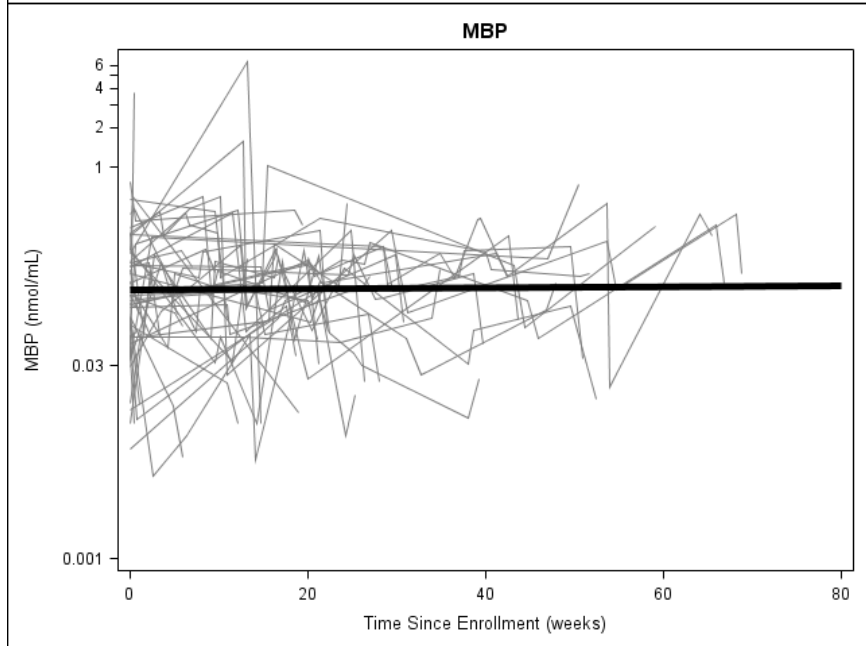
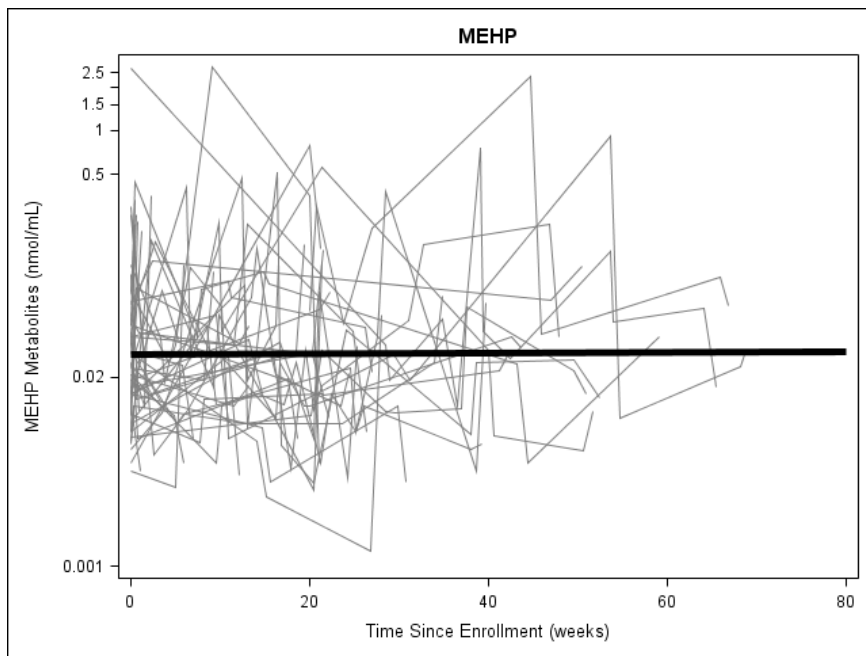
a-All phthalate metabolite and BPA concentrations are specific-gravity adjusted.

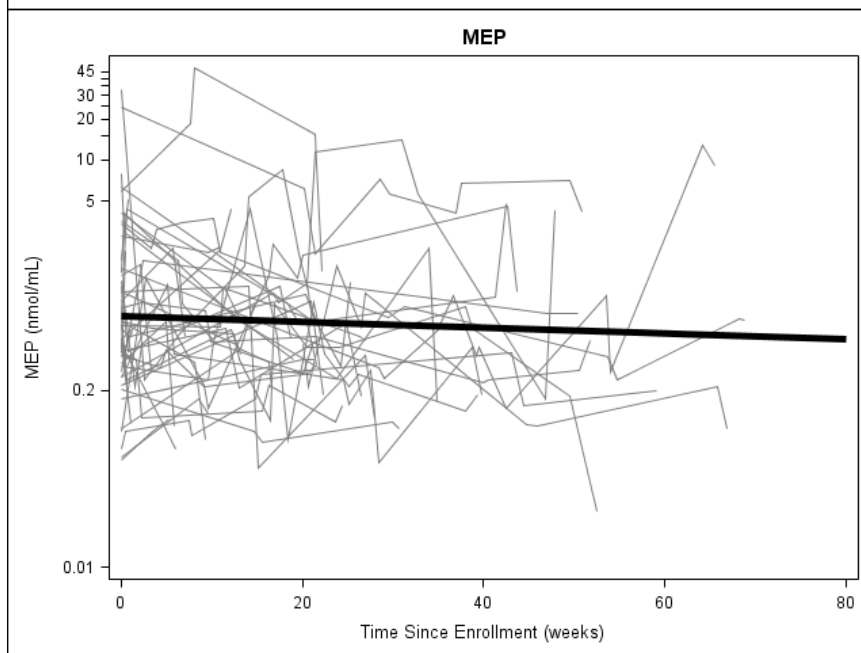
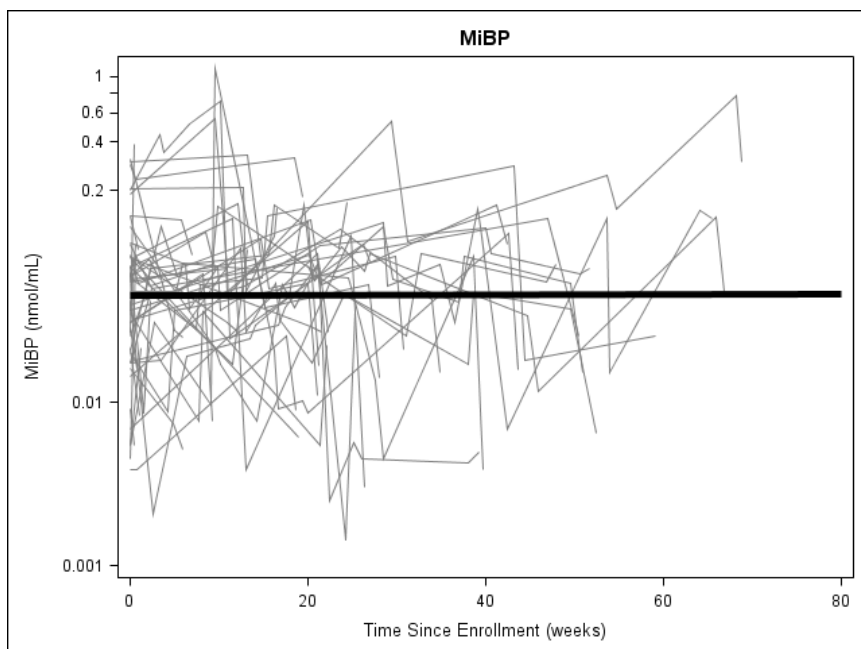
b-DEHP: Di-(2-ethylhexyl) phthalate, MBP: Mono-n-butyl phthalate, MiBP: Mono-iso-butyl phthalate, MBzP: Mono-benzyl phthalate, MEHP: Mono 2-ethylhexyl phthalate, MEP: Monoethyl phthalate, and BPA: Bisphenol A.

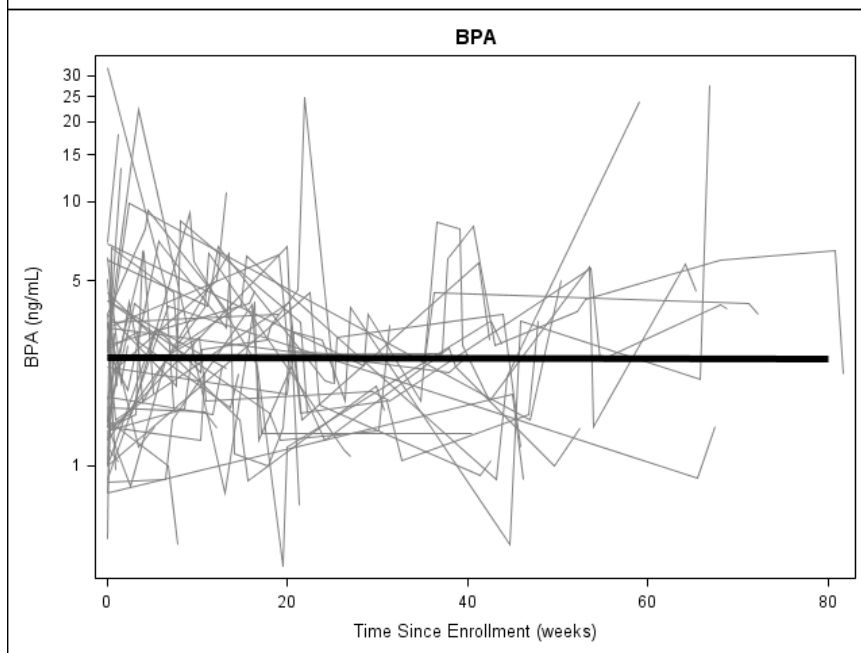
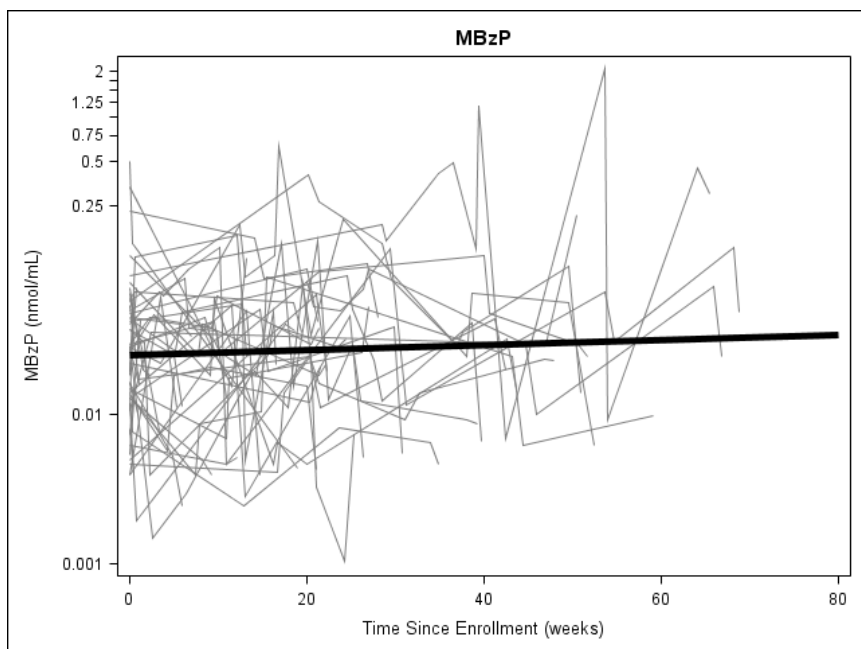
c-A correction factor of 0.66 and 0.72 was applied to the MEP and MBzP concentrations, respectively.

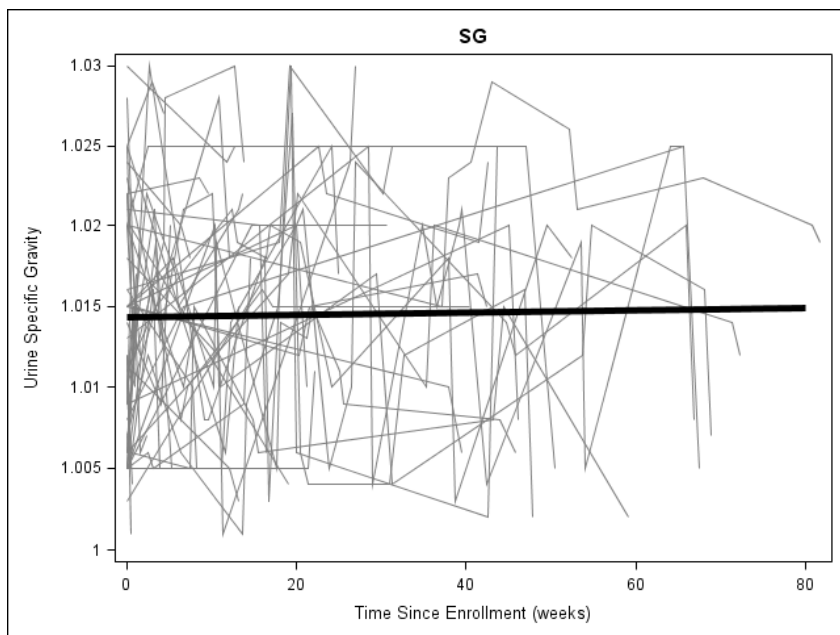
Supplemental Figure 1: Spaghetti plots of specific gravity adjusted pre-pregnancy urinary phthalate and BPA concentrations among a random subsample of 50 women











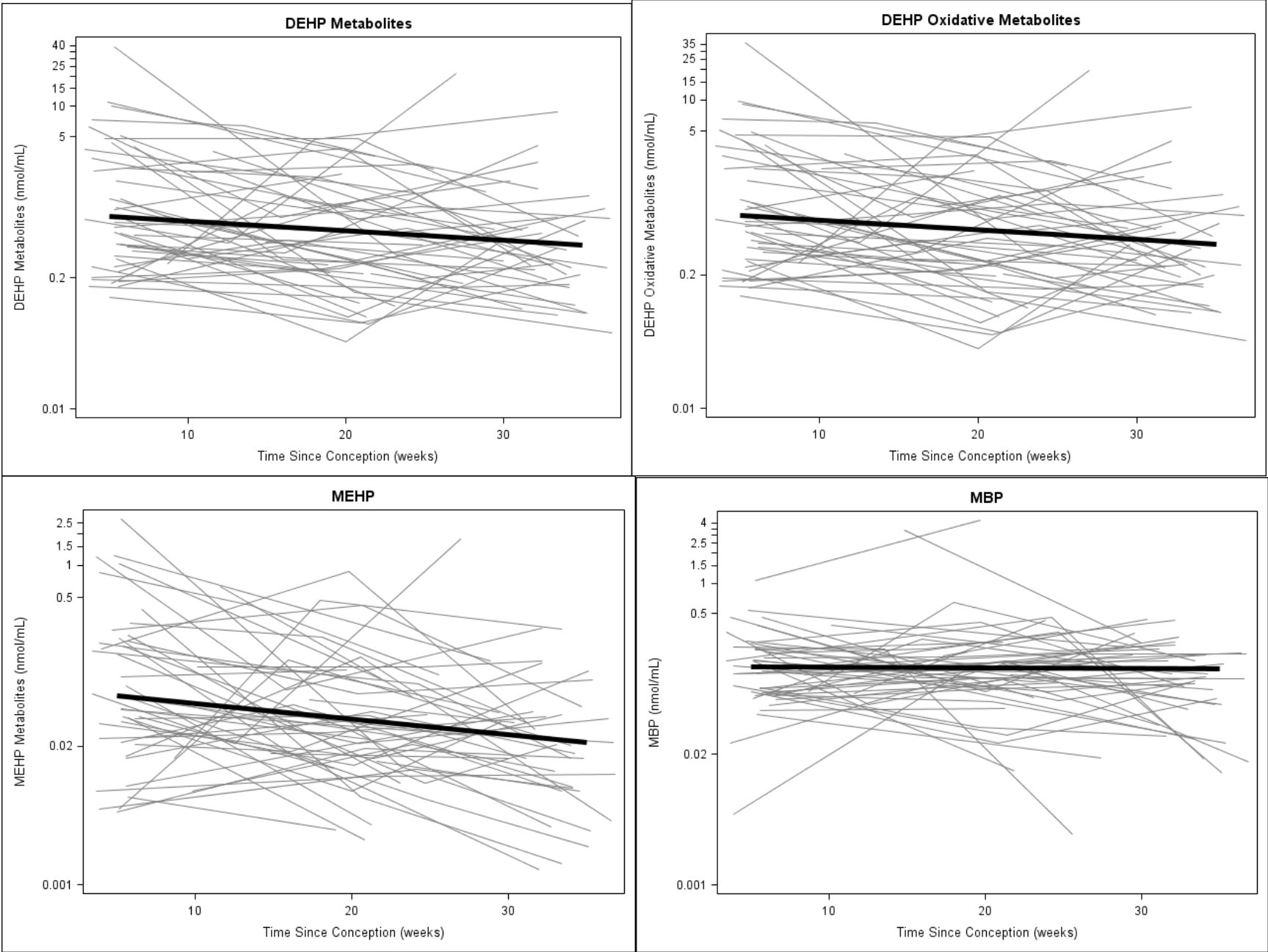
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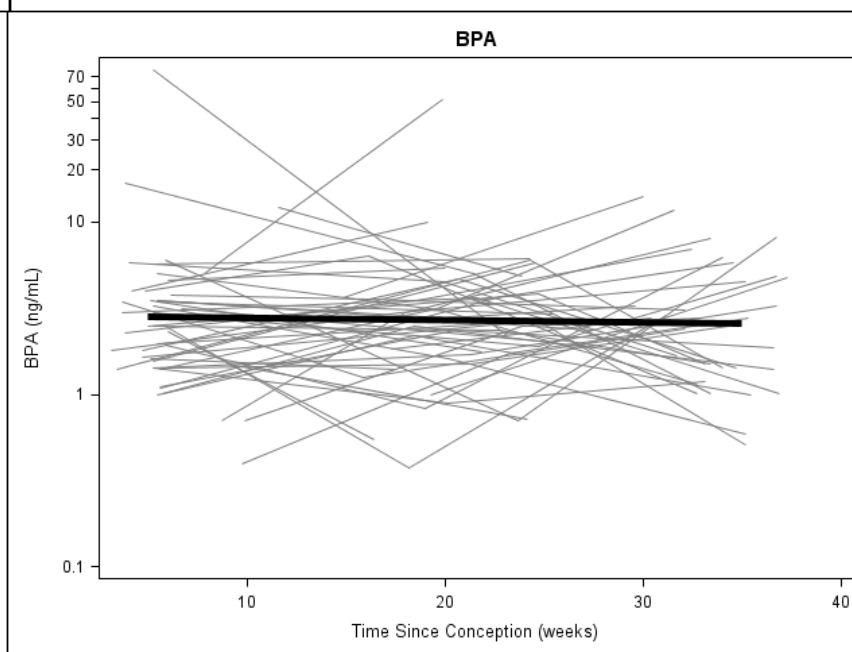
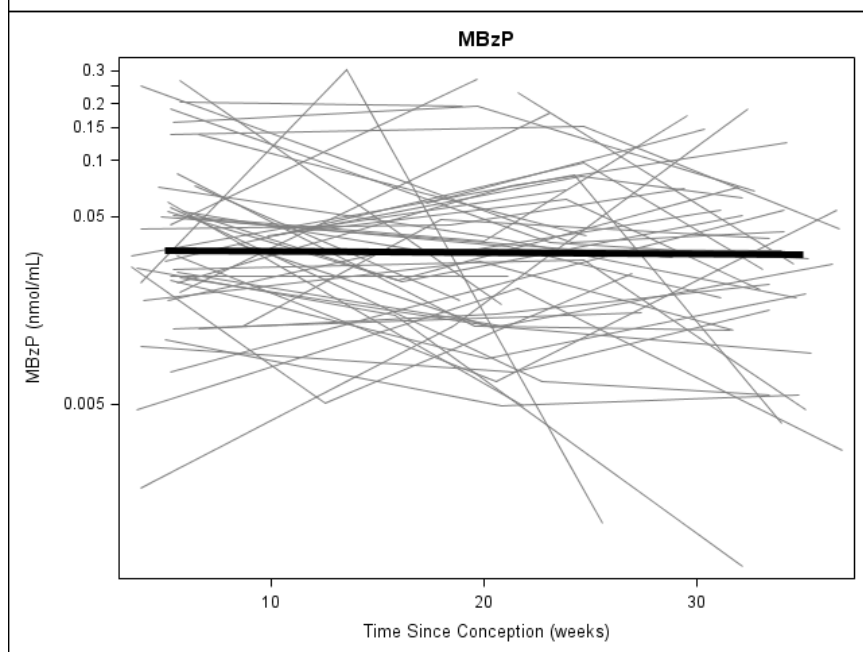
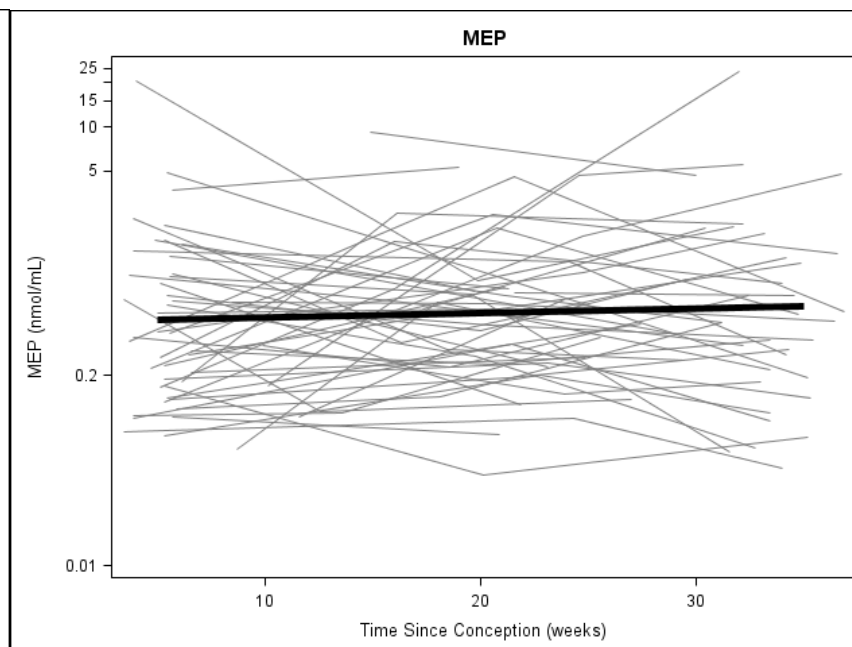
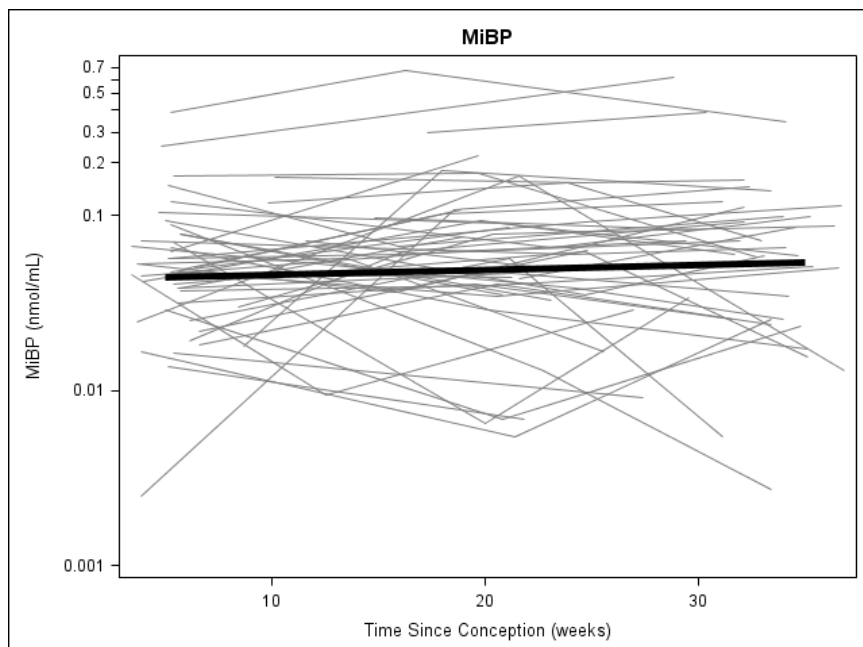
b-DEHP: Di-(2-ethylhexyl) phthalate, MBP: Mono-n-butyl phthalate, MiBP: Mono-iso-butyl phthalate, MBzP: Mono-benzyl phthalate, MEHP: Mono 2-ethylhexyl phthalate, MEP: Monoethyl phthalate, and BPA: Bisphenol A.

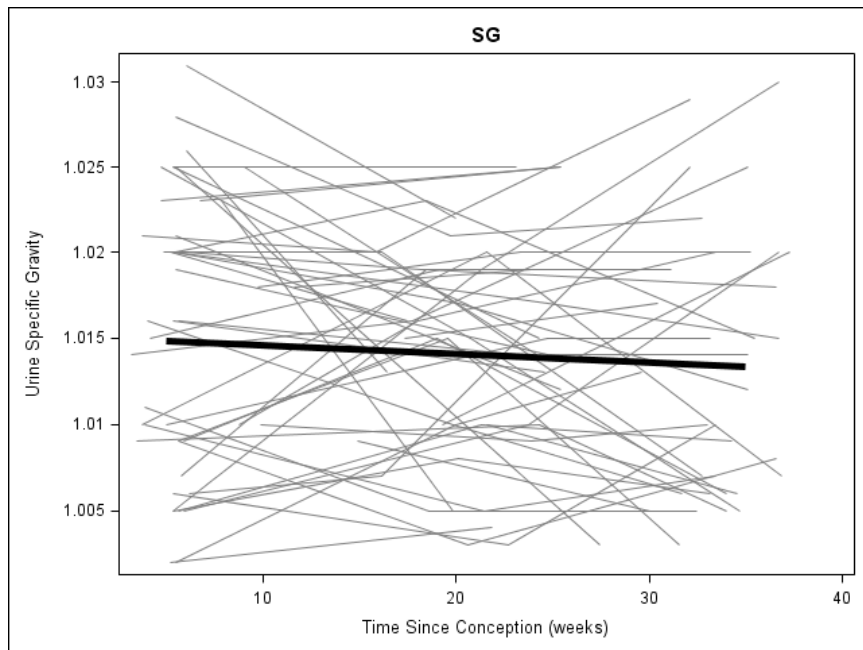
c-A correction factor of 0.66 and 0.72 was applied to the MEP and MBzP concentrations, respectively.



Supplemental Figure 2: Spaghetti plots of pregnancy specific gravity adjusted urinary phthalate and BPA concentrations among a random subsample of 50 women







a-All phthalate metabolite and BPA concentrations are specific-gravity adjusted.

b- DEHP: Di-(2-ethylhexyl) phthalate, MBP: Mono-n-butyl phthalate, MiBP: Mono-iso-butyl phthalate, MBzP: Mono-benzyl phthalate, MEHP: Mono 2-ethylhexyl phthalate, MEP: Monoethyl phthalate, and BPA: Bisphenol A.

c-A correction factor of 0.66 and 0.72 was applied to the MEP and MBzP concentrations, respectively.